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F o r e s t l a n d   I n t e r p r e t a t i o n s

</div>

Forestland interpretations are important to good management. The management of trees begins with an understanding of the soil where they grow or are to be grown. Some soils are very suitable for growing wood crops; others barely support tree cover. Different tree species may vary in production on the same soil.

Forestland interpretations should be used to assist land users in planning, installing, and maintaining forestland management systems.

Forest Management and Productivity

The Forestland Management and Productivity tables presents information about suitable for producing timber for each soil map unit. Management concerns, which include hand planting, mechanical planting, use of harvesting equipment, mechanical site preparation (surface), roads (natural surface), erosion on roads and trails, off-road/trail erosion, soil rutting, log landings, seedling survival, are listed by ratings of:

- Not Limited (0.00)
- Slightly Limited (0.01 to 0.30)
- Moderately Limited (0.31 to 0.60)
- Limited (0.61 to 0.99)
- Very Limited (1.00)

Information on potential productivity includes plant competition, common trees, site index, productivity class, and trees to plant.

Management Concerns

PLANT COMPETITION - A rating of slight indicates little or no competition from other plants; moderate indicates that plant competition is expected to hinder the development of the fully stocked stand of desirable trees; and severe means that plant competition is expected to prevent the establishment of a desirable stand unless the site is intensively prepared, weeded, or otherwise managed for the control of undesirable plants.

POTENTIAL PRODUCTIVITY - This is discussed under the ordination class symbol.

COMMON TREES - Trees that generally occur on the soil are listed regardless of economic importance.

SITE INDEX AND PRODUCTIVITY CLASS - These are discussed under ordination class symbol.

TREES TO PLANT - Trees that are suitable for commercial wood production and that are adapted to the soil.

HAND PLANTING – ratings are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, a water table, and ponding. Ratings indicate the expected difficulty of hand planting, which includes the proper placement of root systems of tree seedlings to a depth of up to 12 inches, using standard hand planting tools. It is assumed that necessary site preparation is completed before seedlings are planted.

MECHANICAL PLANTING – ratings are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, a water table, and ponding. Ratings indicate the expected difficulty using a mechanical planter, which includes proper placement of root systems of tree seedlings to a depth up to 12 inches. It is assumed that necessary site preparation is completed before seedlings are planted.

USE OF HARVEST EQUIPMENT – ratings are based on slope, rock fragments on the surface, plasticity index, content of sand, surface texture, a water table, and ponding. Ratings indicate the suitability for operating harvest equipment for off –road transport or harvest of logs and/or wood products by ground-based wheeled or tracked equipment.

MECHANICAL SITE PREPARATION (SURFACE) – ratings are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, a water table, and ponding. The part of the soil from the surface to a depth of about 12 inches is considered in the ratings. Ratings indicate the suitability of using surface-altering soil tillage equipment to prepare the site for planting or seeding.

ROADS (NATURAL SURFACE) – ratings are based on slope, rock fragments on the surface, plasticity index, content of sand, surface texture, a water table, ponding, flooding, and the hazard of soil slippage. The ratings indicate the suitability for using the natural surface of the soil for roads on which trucks transport logs and other wood products from the site.

EROSION (ROAD/TRAIL) – ratings are based on the soil erodibility factor K, slope, and content of rock fragments. The ratings apply to unsurfaced roads and trails.

EROSION (OFF-ROAD/OFF-TRAIL) – ratings are based on slope and on soil erodibility factor K. The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance.

SOIL RUTTING – ratings are based on a water table, rock fragments on or below the surface, surface texture, depth to a restrictive layer, and slope. Ratings indicate the hazard or risk of ruts in the uppermost soil surface layers by operation of forest equipment. Soil displacement and puddling (soil deformation and compaction) may occur simultaneously with rutting.

LOG LANDINGS – ratings are based on slope, rock fragments on the surface, plasticity index, content of sand, surface texture, a water table, ponding, flooding, and the hazard of soil slippage. Ratings indicate the suitability of the soil at the forest site to serve as a log landing and allows the efficient and effective use of equipment for the temporary storage and handling of logs.

SEEDLING SURVIVAL – ratings are based on flooding, ponding, a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. Ratings indicate the impact of soil, physiographic, and climatic conditions on the survivability of newly established tree seedlings.

See the National Forestry Manual, Subpart B for criteria used in rating management concerns.

This subsection includes:
- **(a) Forest Management (one or two tables)**

Forest Productivity

(Only the soils suitable for production of commercial trees are listed. Absence of an entry indicates that information was not available.)

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber*	
50001:				
Armstrong---------------	Northern red oak----	55	43	European larch,
	White oak-----------	55	43	eastern white
				pine, red pine,
				sugar maple.
50002:				
Keswick-----------------	Northern red oak----	55	43	Eastern white pine,
	White oak-----------	55	43	red pine, sugar
				maple.
Urban land.				
50006:				
Vanmeter---------------	White oak-----------	45	29	Eastern white pine,
				red pine.
50007:				
Vanmeter---------------	White oak-----------	45	29	Eastern white pine,
				red pine.
50008:				
Keswick-----------------	Northern red oak----	55	43	Eastern white pine,
	White oak-----------	55	43	red pine, sugar
				maple.
50009:				
Keswick-----------------	Northern red oak----	55	43	Eastern white pine,
	White oak-----------	55	43	red pine, sugar
				maple.
50010:				
Winnegan----------------	Black oak-----------	---	---	Black oak, northern
	Blackjack oak-------	---	---	red oak, white
	Post oak------------	---	---	ash, white oak.
	White oak-----------	60	43	
50011:				
Winnegan----------------	Black oak-----------	---	---	Black oak, northern
	Blackjack oak-------	---	---	red oak, white
	Post oak------------	---	---	ash, white oak.
	White oak-----------	60	43	
60003:				
Menfro------------------	Black oak-----------	73	57	Black walnut,
	Northern red oak----	81	57	eastern white
	Sugar maple---------	68	43	pine, green ash,
	White ash-----------	70	43	shortleaf pine,
	White oak-----------	59	43	sugar maple,
				tuliptree, white
				oak.

See footnote at end of table.

Forest Productivity--Continued

| Map symbol and soil name | Potential productivity | | | Trees to manage |
	Common trees	Site index	Volume of wood fiber*	
60008:				
Menfro------------------	Black oak-----------	73	---	Black walnut,
	Northern red oak----	81	---	eastern white
	Sugar maple---------	68	---	pine, green ash,
	White ash-----------	70	---	shortleaf pine,
	White oak-----------	59	---	sugar maple,
				tuliptree, white
				oak.
60009:				
Clinkenbeard------------	Eastern redcedar----	---	---	---
	Post oak------------	40	29	
Gasconade---------------	Blackjack oak-------	---	---	---
	Chinkapin oak-------	41	29	
	Eastern redcedar----	27	29	
	Post oak------------	---	---	
Rock outcrop.				
60012:				
Bardley-----------------	Black oak-----------	54	43	Black oak, eastern
	Post oak------------	48	29	redcedar,
	White oak-----------	42	29	shortleaf pine,
				white oak.
Clinkenbeard------------	Eastern redcedar----	---	---	Northern red oak.
	Post oak------------	40	29	
60019:				
Hatton------------------	Black oak-----------	61	43	Norway maple, black
	White oak-----------	56	43	oak, bur oak,
				scarlet oak, white
				ash, white oak.
60020:				
Lenzburg----------------	Black walnut--------	73	---	Black walnut,
	Eastern cottonwood--	---	---	eastern
	Sweetgum------------	76	72	cottonwood, green
				ash, white ash.
60021:				
Lenzburg----------------	Black walnut--------	73	---	Black walnut,
	Eastern cottonwood--	---	---	eastern
	Sweetgum------------	76	72	cottonwood, green
				ash, white ash.
60023:				
Marion------------------	Post oak------------	---	---	Black willow,
	White oak-----------	50	29	eastern
				cottonwood, green
				ash, pin oak,
				silver maple,
				tuliptree, white
				oak.

See footnote at end of table.

Forest Productivity--Continued

Map symbol and soil name	Potential productivity				Trees to manage
	Common trees	Site index	Volume of wood fiber*		
60024:					
Menfro------------------	Black oak-----------	73	57		Black walnut, eastern white pine, green ash, shortleaf pine, sugar maple, tuliptree, white oak.
	Northern red oak----	81	57		
	Sugar maple---------	68	43		
	White ash-----------	70	43		
	White oak-----------	59	43		
60026:					
Weller------------------	White oak-----------	55	43		Black walnut, eastern white pine, red pine, sugar maple.
60027:					
Weller------------------	White oak-----------	55	43		Black walnut, eastern white pine, red pine, sugar maple.
60028:					
Weller------------------	White oak-----------	55	43		Black walnut, eastern white pine, red pine, sugar maple.
60029:					
Weller------------------	White oak-----------	55	43		Black walnut, eastern white pine, red pine, sugar maple.
Urban land.					
60030:					
Winfield---------------	Black oak-----------	65	43		Black oak, eastern white pine, green ash, northern red oak, tuliptree.
	Northern red oak----	60	43		
	White oak-----------	65	43		
60031:					
Winfield---------------	Black oak-----------	65	43		Black oak, eastern white pine, green ash, northern red oak, tuliptree.
	Northern red oak----	60	43		
	White oak-----------	65	43		
60032:					
Winfield---------------	Black oak-----------	65	43		Black oak, eastern white pine, green ash, northern red oak, tuliptree.
	Northern red oak----	60	43		
	White oak-----------	65	43		
60033:					
Wrengart---------------	Black oak-----------	63	43		Black oak, northern red oak, shortleaf pine, white oak.
	Northern red oak----	---	---		
	Shagbark hickory----	---	---		
	White oak-----------	53	43		

See footnote at end of table.

Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber*	
60034:				
Wrengart----------------	Black oak----------	63	43	Black oak, northern red oak, shortleaf pine, white oak.
	Northern red oak----	---	---	
	Shagbark hickory----	---	---	
	White oak----------	53	43	
60035:				
Wrengart----------------	Black oak----------	63	43	Black oak, northern red oak, shortleaf pine, white oak.
	Northern red oak----	---	---	
	Shagbark hickory----	---	---	
	White oak----------	53	43	
Urban land.				
60036:				
Menfro------------------	Black oak----------	73	57	Black walnut, eastern white pine, green ash, shortleaf pine, sugar maple, tuliptree, white oak.
	Northern red oak----	81	57	
	Sugar maple---------	68	43	
	White ash----------	70	43	
	White oak----------	59	43	
60037:				
Wrengart----------------	Black oak----------	63	43	Black oak, northern red oak, shortleaf pine, white oak.
	Northern red oak----	---	---	
	Shagbark hickory----	---	---	
	White oak----------	53	43	
60038:				
Rocheport---------------	Black oak----------	65	57	Black oak, northern red oak.
	Northern red oak----	60	57	
	White oak----------	65	57	
Bonnefemme-------------	Black oak----------	55	43	Black oak, eastern redcedar, eastern white pine.
	Post oak------------	50	29	
60039:				
Rocheport---------------	Black oak----------	65	57	Northern red oak.
	Northern red oak----	60	57	
	White oak----------	65	57	
Bonnefemme-------------	Black oak----------	55	43	Black oak, eastern redcedar, eastern white pine.
	Post oak------------	50	29	
64002:				
Freeburg----------------	White oak----------	65	43	Black oak, eastern cottonwood, green ash, pecan, pin oak, tuliptree, white oak.
64004:				
Auxvasse----------------	Green ash----------	---	---	Eastern cottonwood, green ash, pin oak, silver maple, sweetgum, tuliptree, white oak.
	Northern red oak----	---	---	
	Pin oak------------	76	57	
	Silver maple--------	---	---	

| Map symbol and soil name | Potential productivity | | | Trees to manage |
	Common trees	Site index	Volume of wood fiber*	
64005:				
Moniteau---------------	Pin oak-------------	70	57	Black willow, eastern cottonwood, green ash, pin oak, silver maple, sweetgum, white oak, willow oak.
64006:				
Tanglenook-------------	Eastern cottonwood--	90	100	American sycamore, common hackberry, eastern cottonwood, green ash, pin oak, silver maple.
	Silver maple--------	80	29	
66007:				
Leta-------------------	Black willow--------	---	---	Eastern cottonwood, green ash, pecan, silver maple, sweetgum.
	Eastern cottonwood--	90	100	
	Silver maple--------	85	43	
66014:				
Haymond----------------	American sycamore---	---	---	Black cherry, black locust, black walnut, eastern white pine, northern red oak, white ash, white oak.
	Black walnut--------	70	---	
	White oak-----------	90	72	
66015:				
Blake------------------	American sycamore---	---	---	American sycamore, eastern cottonwood, green ash, silver maple.
	Eastern cottonwood--	115	172	
	Silver maple--------	---	---	
66016:				
Blake------------------	American sycamore---	---	---	American sycamore, eastern cottonwood, green ash, silver maple.
	Eastern cottonwood--	115	172	
	Silver maple--------	---	---	
66017:				
Cedargap---------------	Black oak-----------	66	43	Black oak, shortleaf pine.
Dameron----------------	American sycamore---	---	---	Black walnut, green ash, pecan.
	Black walnut--------	72	---	
	Green ash-----------	70	72	
	White oak-----------	---	---	
66018:				
Darwin-----------------	American sycamore---	---	---	American sycamore, eastern cottonwood, green ash, pin oak, red maple.
	Eastern cottonwood--	---	---	
	Green ash-----------	---	---	
	Pin oak-------------	80	57	
	Swamp white oak-----	---	---	

See footnote at end of table.

Forest Productivity--Continued

Map symbol and soil name	Potential productivity			Trees to manage
	Common trees	Site index	Volume of wood fiber*	
66019:				
Haynie-----------------	American sycamore---	---	---	Black walnut,
	Black walnut--------	---	---	eastern
	Common hackberry----	---	---	cottonwood, green
	Eastern cottonwood--	105	143	ash.
	Green ash-----------	---	---	
66020:				
Haynie-----------------	American sycamore---	110	157	Black walnut,
	Black walnut--------	---	---	eastern
	Eastern cottonwood--	110	157	cottonwood.
	Green ash-----------	---	---	
66021:				
Perche-----------------	Green ash-----------	85	---	Pecan, white oak.
	Northern red oak----	66	43	
	Sugar maple---------	---	---	
66022:				
Sandover---------------	Eastern cottonwood--	85	86	Eastern cottonwood,
	Pin oak-------------	75	57	green ash.
	Willow--------------	---	---	
66023:				
Sarpy------------------	Eastern cottonwood--	95	114	American sycamore, eastern cottonwood, silver maple.
66024:				
Wilbur-----------------	American sycamore---	---	---	Black cherry, bur oak, green ash, pin oak, red maple, sweetgum.
	Pin oak-------------	---	---	
66025:				
Jemerson---------------	Black oak-----------	65	43	Black oak, eastern white pine, green ash, northern red oak.
	Northern red oak----	60	43	
	White oak-----------	65	43	

* Volume of wood fiber is the yield in cubic feet per acre per year calculated at the age of culmination of the mean annual increment for fully stocked, even-aged, unmanaged stands.